

NEW TAXA OF *EUPATORIUM* SECT. *DALEA* (COMPOSITAE: EUPATORIEAE)

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ABSTRACT

Eupatorium yashanalense sp. nov. from Chiapas, Mexico differs from *E. conzatti* and *E. lozanoanum* in its terete stems, ovate leaves, spirally inserted phyllaries and glabrous achenes; *E. parviflorum* var. *monticola* var. nov. from Blue Mountain Peak, Jamaica, differs from var. *parviflorum* in its smaller narrower leaves and its small condensed inflorescences.

In the course of preparing a monograph of *Eupatorium* sect. *Dalea* (Whittemore 1987) I have come across two new taxa which I publish here in advance of the complete monograph. I am following McVaugh (1982) in treating *Eupatorium* broadly; if the classification of King and Robinson (1987) is accepted, both of these taxa would fall into the segregate genus *Critonia*.

EUPATORIUM yashanalense A.T. Whittemore sp. nov. Fig. 1.

Eupatorio lozanoano similis, sed foliis ovatis vel elliptico-ovatis, 5 1/2 – 7 1/2 cm latis, trinerviis; phyllariis spiralibus; acheniis glabris vel fere glabris.

Shrub or climber to 5 m tall; stem to 1 1/2 – 3 mm in diameter, terete or nearly so, lightly striate, glabrous, greenish brown to brown, usually pithy but hollow when large. Phyllotaxy decussate; petiole to 8 – 11 mm long, dorsally channelled; lamina membranous, ovate to elliptic-ovate, to 11 – 16 cm long, to 5 1/2 – 7 1/2 cm wide, 2 – 3 times as long as wide, widest about 0.3 above the base, trinerved from the base, the lateral veins strong to the base of the acumen, the secondary veins almost transverse; apex slenderly acuminate, base obtuse to rounded-obtuse, margins serrate; veins and petiole yellow-green to brown, sometimes with a few scattered hairs, lamina dark green, glabrous, rendered punctate by translucent resin cavities along veinlets and in the areoles, resin cavities mostly isodiametric, 40 – 70 μ m wide. Inflorescence a leafy panicle of several hundred heads, its branches glabrous; heads sometimes rather crowded but never densely glomerate, sessile or pedicellate, 8 – 9 mm long, 2 – 3 mm wide, 5-flowered; involucre 6 – 8 mm long, phyllaries spirally arranged in 4 – 5

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series, glabrous or the margins bearing short hairs, in texture delicate and membranous margined, green, lightly ca. 5-striate, apices rounded, the phyllaries graduated in length, the outermost ovate, the innermost oblong linear, the inner phyllaries deciduous; receptacle 0.3 mm wide, its summit flat, glabrous, without sclerotization. Corolla tubular, 4 – 4 1/2 mm long, glabrous, its lobes triangular, 0.4 – 0.6 mm long; anther appendages well developed, about 0.3 mm long, about twice as long as wide, rounded apically; style branches filiform, smooth, stigmatic for less than half of their length; pappus bristles ca 30 – 35 per achene, 4 – 5 mm long, their tips weakly broadened and flattened. Achene clavate, 5 ribbed, glabrous or with a few hairs at the summit of the ribs, 3.0 – 3.3 mm long; carpodium cylindrical, 30 – 70 μm high, set off by a strong constriction above, its upper margin sharp.

Ecology and distribution: Steep humid slopes, tropical evergreen forest or *Pinus* - *Quercus* - *Liquidambar* forest, ca 2000 m elevation; endemic to the highlands of northern Chiapas, Mexico.

TYPE: MEXICO. CHIAPAS: Municipio of Tenejapa, evergreen cloud forest with *Pinus*, *Quercus* and *Liquidambar* near paraje Yashanal; plant sprawling in trees. 28 January 1981, D.E. Breedlove 49640 (HOLOTYPE: CAS; ISOTYPES: [according to Breedlove *in lit.*] MEXU, MO).

Additional specimens: CHIAPAS: Municipio of Rayon, steep slopes near Puerto del Viento, 15 km NW of Pueblo Nuevo Solistahuacan along hwy 195 to Tapilula, 1800 m, R.F. Thorne and E. Lathrop 41760 (CAS), D.E. Breedlove 12005 (CAS, MICH); Municipio of Rayon, La Selva Negra, ca 17 km NW of Pueblo Nuevo Solistahuacan, 1800 m, F. Miranda 9180 (US).

This species seems to be most closely related to *E. conzattii* Greenm. and *E. lozanoanum* B.L. Rob., neither of which is found in Chiapas. *E. conzattii* differs in its 6-angled stem, *E. lozanoanum* in its lanceolate leaves which are at least 4 times as long as wide and its pubescent achenes, and both differ in their decussate rather than helically inserted phyllaries. The name is derived from the type locality.

EUPATORIUM PARVIFLORUM Sw. var. **monticola** A.T. Whittemore var. nov.

Folia petiolis 6 – 10 mm longis, lanceolato-elliptica vel lanceolata, 8 – 10 cm longa, 2 – 2 1/2 cm lata; inflorescentia parva, condensata, capitulis congestis, quinquefloribus.

Shrub or small tree, bark ash-gray; young stem ca 3 mm in diameter, brown, glabrous (at least when mature), 6-angulate, pith solid. Phyllotaxy decussate; petiole to 6 – 10 mm long, grooved dorsally, lamina membranous, drying dark brown or blackish, lance-elliptical to lanceolate (occasionally weakly oblanceolate), to 8 – 10 cm long, to 2 – 2 1/2 cm wide, 4 – 5 times as long as wide, widest 0.4 – 0.6 above the base, venation

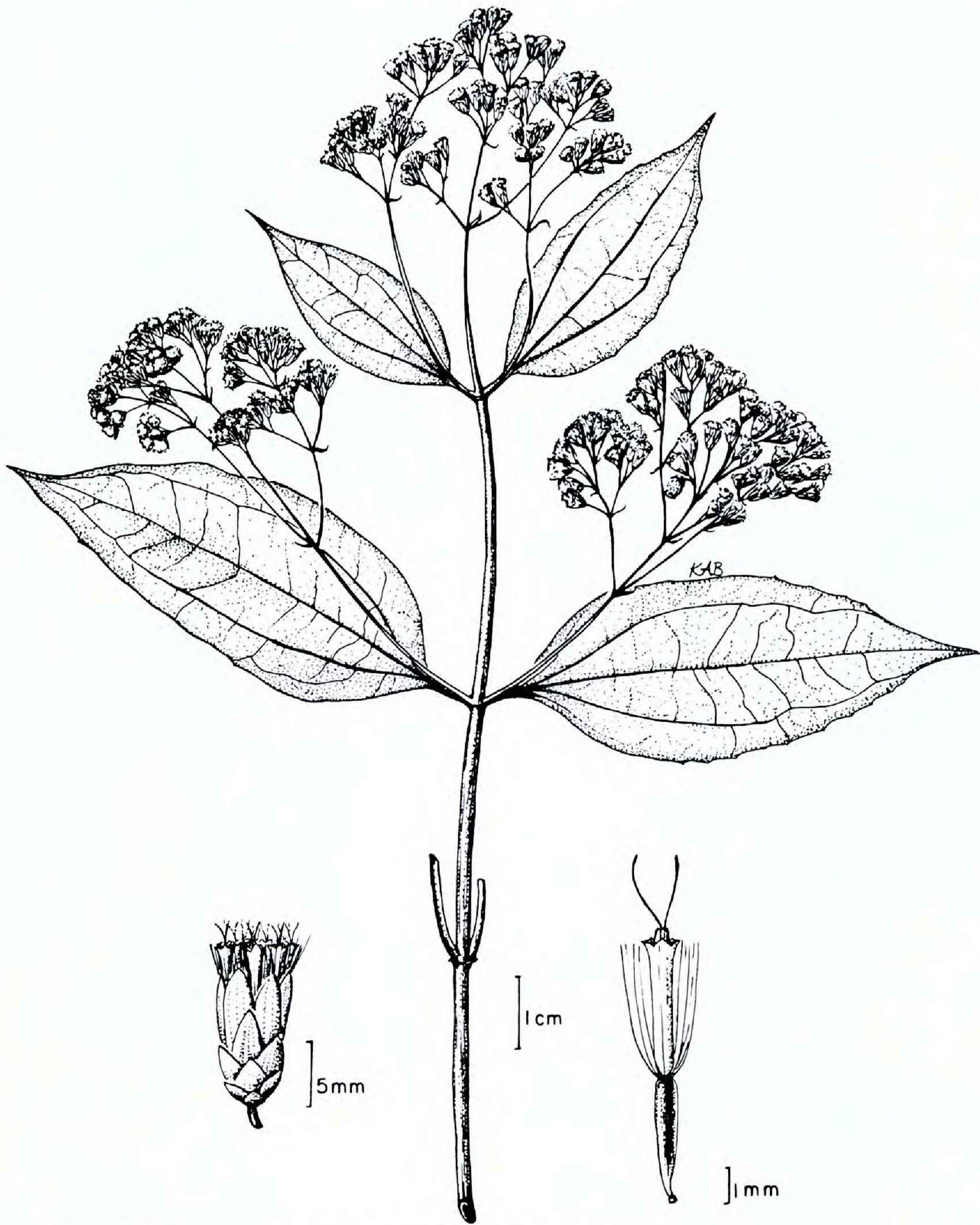


FIG. 1. *Eupatorium yashanalense* sp. nov., from the holotype.

pinnate; apex acuminate, base acuminate, margins serrate; leaves glabrous (sometimes with a few very inconspicuous appressed hairs), rendered punctate by crowded resin cavities along the veins and in the areoles, the largest 100 – 150 μm wide and sometimes greatly elongated, the smallest isodiametric and about a quarter as wide. Inflorescence a terminal panicle of 100 – 300 heads, the bracts very much smaller than the foliage leaves, the branches crisped-pubescent, heads densely glomerate, sessile, 5 1/2 – 6 mm long, 2 1/2 – 3 1/2 mm wide, 5-flowered; involucre 5 mm long, phyllaries spirally arranged in 3 – 4 series, glabrous, in texture delicate and membranous margined, brown to dark purplish brown, lightly to distinctly 5-striate, apices rounded, the phyllaries graduated in length, the outermost ovate to elliptical-ovate, the innermost narrowly oblong-elliptical, the inner phyllaries deciduous; receptacle 0.3 mm wide, its summit flat, glabrous, without sclerotization. Corolla tubular, 2 – 3 mm long, glabrous, its lobes long-triangular, 0.6 mm long; anther appendages to 0.1 mm long, half to two-thirds as long as wide, rounded to retuse; style branches weakly clavate, smooth or nearly so, stigmatic for less than half their length; pappus bristles 25 – 30 per achene, very irregular in length and thickness, the longest 2 – 3 mm long, well developed bristles mostly flattened for their whole length, sometimes forked, their apices mostly not tapering to a slender point. Achene strongly clavate, 5-ribbed, sparsely pubescent over the whole pericarp, 1.5 – 2 mm long, carpodium none.

Wet montane forests, flowering September through November, endemic to Blue Mountain Peak, Jamaica, from 1800 – 2000 m elevation.

TYPE: JAMAICA. ST. THOMAS: upper west slope of Blue Mountain Peak, 6500 – 7000 feet, mossy montane woodland; small tree, heads whitish; September 18, 1963; *George R. Proctor* 24027 (HOLOTYPE: TEX; ISOTYPES: GH, MICH).

Additional specimens: JAMAICA. Parish unknown: without locality, *J. H. Hart* s.n. (E, NY); without locality, 6000 feet, *J.H. Hart* 352 (US). ST. THOMAS: west slope of Blue Mountain Peak, 6000 – 7000 feet, *George R. Proctor* 9438 (GH, NY); same locality, 6500 feet, *G.R. Proctor* 7224 (US).

This variety corresponds to the “montane” variant of Adams (1972). The typical variety, *E. parviflorum* var. *parviflorum*, differs from var. *monticola* in its larger, broader leaves (commonly with the petiole over 15 mm long and the lamina to 15 – 23 cm long, 1.7 – 3 times as long as wide), its mostly 2- to 3-flowered heads, its much broader, laxer inflorescences and its occurrence at lower elevations (usually below 1000 m). Two apparently intermediate specimens have been seen (Jamaica: Blue Mtn. Peak, 2420 m, *Shreve* s.n. [NY]; New Haven Gap, *Britton* 143 [NY]).

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REVIEW

ATTA-UR-RAHMAN, H. M. SAID, & V. U. AHMAD (Editors). 1986. Pakistan Encyclopaedia Planta Medica. Vols. 1, 2. Hamdard Foundation Press, Hamdard Centre, Nazimadad, Karachi-18, Pakistan. Pak. Rs. 300/\$US 50, per vol.

This joint research project of Hamdad Foundation Pakistan and H.E.J. Research Institute of Chemistry was initiated in 1983. "A computer assisted compilation has been made in Chicago (NAPALERT) but this relates only to work carried out mainly after 1977. It was therefore considered desirable to produce a more comprehensive work which would provide research workers with an encyclopaedic series of volumes on which they could base their future researches, and which would bring into focus those aspects of medicinal plants of Pakistan towards which their efforts should be directed... The first volume covers 94 out of 217 medicinal plants of Pakistan beginning with the alphabet "A" and containing almost five thousand references to the original literature was published in early